

REMARKS

The Office Action dated July 11, 2003, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

As a preliminary matter, Applicants appreciate the indication of allowable subject matter in claims 2, 3 and 5 of the present application.

Claim 1 has been amended. Applicants submit that the amendments made herein are fully supported in the specification and the drawings as originally filed, and therefore no new matter has been added. Accordingly, claims 1-5 are pending in the present application, and Applicants submit claims 1 and 4 for consideration.

Claims 1-5 were rejection under 35 U.S.C. § 112, second paragraph as being indefinite because claim 1 recites the word "arbitrarily". Claim 1 has been amended to delete the word "arbitrarily". It is submitted that the amendments made to claims 1-5 does not narrow the scope of the claims. Therefore, Applicants submit that claims 1-5 are in compliance with U.S. patent practice, and respectfully request the withdrawal of the rejection under 35 U.S.C. § 112.

Claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as being anticipated by Parsons et al. (U.S. Patent No. 5,002,170, hereinafter "Parsons"). Applicants respectfully traverse the rejection and submit that each of claims 1 and 4 recites subject matter that is neither disclosed nor suggested by the cited prior art.

Claim 1 recites a vehicle starting clutch control device for controlling a transmission torque capacity of a starting clutch through an actuator. The vehicle starting clutch control device includes a first control means, a second control means, a

third control means and a delay means. The first control means control the actuator so that the starting clutch is put in a state that the starting clutch completely transmits the output torque of an engine at the time of power-on running with an accelerator pedal being depressed. The second control means controls the actuator so that the transmission torque capacity of the starting clutch becomes a value required to transmit a torque equal to an engine absorption torque corresponding to the engine speed at the time of power-off running without the accelerator pedal being depressed. Furthermore, the third control means controls the actuator so that the transmission torque capacity of the starting clutch is gradually increased to shift the starting clutch to the completely transmitted state when the accelerator pedal is depressed during power-off running. The delay means delay the start of control based on the third control means until a predetermined time after the accelerator pedal is depressed.

Accordingly, at least one of the essential features of the present invention is a "third control means for controlling said actuator so that the transmission torque capacity of said starting clutch is gradually increased to shift said starting clutch to the completely transmitted state when said accelerator pedal is depressed during power-off running". Therefore, the present invention results in the advantage of having a vehicle starting clutch control device which can prevent the generation of surging vibration when the accelerator pedal is abruptly depressed during power-off running.

It is respectfully submitted that the prior art fails to disclose or suggest at least the element of the third control means for controlling the actuator so that the transmission torque capacity of the starting clutch is gradually increased to shift the

starting clutch to the completely transmitted state when the accelerator pedal is depressed during power-off running, and therefore fails to provide the advantages which are provided by the present invention, as claimed.

Parsons discloses a torque responsive clutch control. In particular, parsons shows a motor vehicle 2 having front ground running wheels 4, rear wheels 6, an internal combustion engine 8 and drive line means comprising an automatic gear box 10 driving the two front wheels 4. The automatic gear box comprises a clutch system 12, a gear box 14, an hydraulic control 16, and an electronic control 18 comprising computer means containing a predetermined controlling program. The engine output torque as shown in Parsons is a function of the extent to which the throttle valve is open; the further the valve is open, the greater the throttle angle and the greater the output torque. A microprocessor based clutch control is provided to measure the throttle angle, determine the output torque, and automatically engage and disengage the clutch with respect to time. The clutch control of Parsons also allows manual gear operation and clutch slip control.

Applicants respectfully submit that each and every element recited within claim 1 of the present application is neither disclosed nor suggested by Parsons. In particular, Applicants respectfully submit that the vehicle starting clutch control device for controlling a transmission torque capacity of a starting clutch through an actuator as recited in the present application is clearly distinct from that which is illustrated in Parsons. Specifically, it is submitted that Parsons fails to disclose or suggest at least the limitation of the "third control means for controlling the actuator so that the

transmission torque capacity of the starting clutch is gradually increased to shift the starting clutch to the completely transmitted state when the accelerator pedal is depressed during power-off running.”

As mentioned above, Parsons merely discloses a torque responsive clutch control provided with a microprocessor based clutch control to measure the throttle angle, determine the output torque, and automatically engage and disengage the clutch with respect to time. However, it is submitted that Parsons fails to disclose or suggest at least a “third control means for controlling the actuator so that the transmission torque capacity of the starting clutch is gradually increased to shift the starting clutch to the completely transmitted state when the accelerator pedal is depressed during power-off running.”

Accordingly, Applicants respectfully submit that Parsons fails to disclose or suggest each and every element recited within claim 1 of the present application.

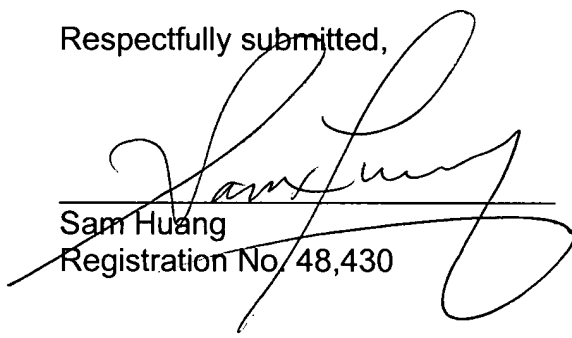
As for claim 4, it is submitted that claim 4 depends from allowable claim 1. As such, Applicants submit that claim 4 is also allowable due to its dependency from allowable claim 1.

In view of the above, Applicants respectfully submit that claims 1 and 4 each recite subject matter which is neither disclosed nor suggested in the cited prior art. Applicants also submit that the subject matter is more than sufficient to render the claims non-obvious to a person of ordinary skill in the art, and therefore respectfully requests that claims 1 and 4 be found allowable along with allowable claims 2, 3 and 5, and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 107355-00045**.

Respectfully submitted,



Sam Huang
Registration No. 48,430

Customer No. 004372
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

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